AMENDMENTS TO THE DRAWINGS:

Drawing Figure 4 has been amended to conform with the specification by showing usable storage capacity of each user as item (D) and data update time as item (E).

REMARKS

The application has been amended and is believed to be in condition for allowance.

Drawing figure 4 has been amended to conform with the specification by showing usable storage capacity of each user as item (D) and data update time as item (E). See published application paragraphs [0031-0033].

Claims 7-8 were indicated to be directed to allowable subject matter.

Claims 1, 14, and 20 are independent.

Claims 1, 2, 14, 15, and 20 were rejected as anticipated by SHINMURA 5,193,171.

Claims 3-6, 9-13, and 16-19 were rejected as obvious over SHINMURA in view of KANAI 2002/0152181.

A review of the present invention may prove useful.

Referring to Figure 1, a storage system according comprises plural of storage components connected to one another via a network 2.

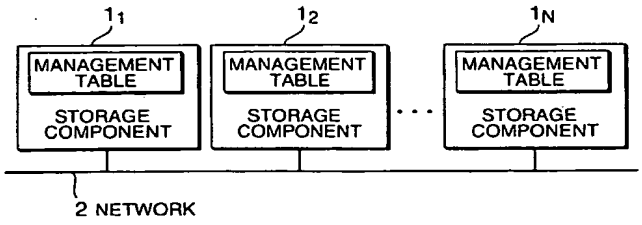


Figure 1

Each storage component may comprise a communication processing unit 11, a content acquisition unit 12, a recording

unit 13, the first management table 14, the second management unit 15, an input unit 16, and a control unit 17. See Figure 2.

The communication processing unit 11 is an interface for transmitting and receiving packets describing various kinds of information to and from other storage components via the network 2. The recording unit 13 is for recording contents.

Each of the storage components includes a management table(s) having a first management item and a second management item. The first management item manages, for each user, storage capacity in use by users in each of the storage components 11 to 1N on the network 2. The second management item manages, for each user, the total storage capacity each user is allowed to use in all the storage components on the network. On the basis of this management table, the storage capacity used by a user is restricted so as not to exceed the total storage capacity the user is allowed to use.

As illustrated by Figure 3, the first management table 14 of each storage component includes the storage capacity in use by users in each of the recording units 13 of all the storage components 11 to 1N. More specifically, in the first management table 14 of each storage component, there is stored (A) the total storage capacity of the recording unit 13 of that specific individual storage component, (B) the storage capacity in use by each user A to X in the recording unit of each storage component, and (C) a time when data of item B was updated.

DEVICE NAME : STORAGE DEVICE 1_1

	(A) STORAGE CAPACITY	(B) STORAGE CAPACITY IN USE OF EACH USER					(C) DATA UPDATE TIME
		USER A	USER B	USER C	・・・	USER X	
STORAGE COMPONENT 1_1	200G	34M	33M	21G		12M	02/03/21 13:23:32
STORAGE COMPONENT 1_2	500G	300M	0M	10M		123G	02/03/11 13:23:32
STORAGE COMPONENT 1_3	300G	20M	33M	90G		12M	02/02/21 13:23:32
STORAGE COMPONENT 1_4	200G	50M	33M	100M		12M	02/03/20 13:23:32
・・・							
STORAGE COMPONENT 1_N	500G	200G	33M	21M		12M	02/03/21 13:03:32

Figure 3

	(A) USABLE STORAGE CAPACITY	(B) DATA UPDATE TIME
USER A	500G	02/03/21 13:23:32
USER B	400G	02/03/31 13:23:32
USER C	500G	02/03/21 13:13:32
・・・		
USER X	450G	02/03/22 13:23:32

Figure 4

As illustrated by Figure 4, the second management table 15 includes, for each user, i) the total storage capacity each user is allowed to use, in total, in all the recording units 13 of the storage components 11 to 1N, and ii) the time this data was updated.

The control unit 17 controls the above each component, and more specifically, performs acquisition, creation, and management of the data of the first management table 14 and second management table 15, restriction on the storage capacity of each user on the basis of the first management table 14 and the second management table 15, and recording of contents onto the recording unit 13.

Beginning with published application paragraph [0036], the operation of this embodiment is described. When an individual storage component receives an instruction for recording or deleting contents into or from its recording unit 13, its control unit 17 recognizes a user that the recording instruction or deleting instruction is received from. After executing a deletion instruction, the storage capacity in use of each user is updated, and that time is also updated as data update time.

However, when receiving a recording instruction, the control unit 17 of each storage component 11 to 1N determines (based on the first management table 14 and the second management table 15) whether executing the recording instruction would result in the storage capacity of the recording unit 13 used by the user exceeding the user's total allowed storage capacity. Only when it determined that the record operation would not exceed the user's total allowed storage capacity, the control unit 17 executes the recording processing.

The control unit 17 of each storage component 11 to 1N transmits the packets describing the data in the first management table 14 of the own storage component, periodically and/or at predetermined timing (when the own storage component is activated or when the data of the first management table 14 is changed according to the change in the use status of the recording unit 13), by broadcasting into the network 2 or to multicast group

addresses on the network 2 which are common to the storage components 11 to 1N.

Thus, the first management item (comprising first data and second data), illustrated by Figure 3, is maintained and updated.

Neither SHINMURA nor KANAI teaches or suggests such storage components.

More specifically, there is no teaching or suggestion of connecting plural storage components with each storage component having the recited management table comprised of the recited first management item and second management item.

Neither SHINMURA nor KANAI teaches or suggests the first management item comprising i) first data generated by a control unit registering the storage capacity in use by each user of the recording unit of the first storage component, and ii) the second data generated by the control unit of each of the other storage components respectively registering storage capacity in use by each user in each of the other storage components.

Neither SHINMURA nor KANAI teaches or suggests using such first and second data, both the first and second data registered in the management table of each storage component, to restrict the storage capacity in use by the users so that the storage capacity of the recording unit used by a user does not exceed the total storage capacity that the user is allowed to use.

Figure 2B of SHINMURA does not satisfy these amended recitations. See that the claims require each storage component to 1) generate the first data for storage used by each user within its recording unit and 2) receive, from the other storage components, the second data indicating the storage used by each user within each other respective storage component, and 3) register this first and second data within its own management table.

The elements of SHINMURA offered by the Official Action merely are memory pools that store data. SHINMURA does not teach the generation of data and then send data to the other storage components for inclusion in each storage component's management table.

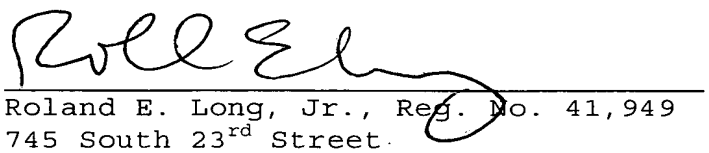
Reconsideration and allowance of all the claims are therefore respectively requested.

In view of the above, applicants believe that the present application is in condition for allowance and an early indication of the same is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



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APPENDIX:

The Appendix includes the following item:

- replacement sheet for Figure 4